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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,634	12/16/2003	Franck Landrieve	0507-1065	3516

466 7590 05/23/2005

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EXAMINER

BURCH, MELODY M

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,634

Applicant(s)

LANDRIEVE, FRANCK

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities:

The phrase "for breaking" in line 2 of claim 6 should be changed to either --for braking--.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over FR-2804479 (FR '479) in view of US Patent 5044784 to Lisowsky.

Re: claims 1, 2, 3, 22, and 23. FR '479 shows in figures 19 and 20 a braked rolling bearing device of the type for a control wheel, comprising an outer part 2 and an inner part 4, one (the inner part) being able to rotate with respect to the other, which does not rotate, by means of at least one row of rolling elements 6 arranged between the rotating and non-rotating parts, the device further comprising a means for detecting rotating parameters 16, a means 62,62a for braking the rotating part, and an annular friction member 63 or 64, the braking means comprising at least one component 62 equipped with a flexible tab 62a bearing against the annular friction member as shown in figure 19.

FR '479 shows the use of one flexible tab, but does not show the limitation of the component being equipped with a plurality of flexible tabs.

Lisowsky teaches in figures 2-4 the use of a component 54 being equipped with a plurality of flexible tabs 56.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the flexible tab of FR '479 to have been a plurality of flexible tabs, as taught by Lisowsky, in order to provide sinusoidal or wavelike deflections of element 64 in response to movement of element 62 in an axial direction to effect different energy-absorbing characteristics depending on the particular application. Examiner also notes that the use of multiple tabs will result in a similar braking capacity due to the contact of the tabs against element 64 using less material.

Re: claims 4 and 5. FR'479, as modified, teaches in figure 2 of Lisowsky the limitation wherein the tabs are arranged in opposing pairs and are uniformly distributed about the circumference as shown in figure 2.

Re: claims 6 and 9. FR '479 shows the means for braking being push fitted onto a support or groove as shown of the outer part.

Re: claim 7. In an alternate embodiment the means for braking includes 63a-63c wherein the means for braking is push-fitted onto a shaft 4b secured to the inner part as shown.

Re: claim 8. FR '479, as modified, teaches in figure 20 of FR '479 the limitation wherein in that the member equipped with the tabs comprises a push-fit portion or portion shown lodged into element 2 and leading up to area 62a and a portion 62a

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equipped with tabs, one of the portions being axial (particularly, the axial component of the portion lodged into element 2) and the other (62a) radial.

Re: claims 10 and 15. FR'479 shows the means for braking forming a sealing means 64 by way of a narrow passage in which element 64 is placed.

Re: claims 11-13. FR '479, as modified, teaches in figure 20 of FR '479 the limitation wherein the annular friction member comprises a support 63a and a friction lining 64, the support is mounted axially between a bearing ring 4 and a shoulder 33 of an element 31 secured to the ring.

Re: claim 14. FR '479, as modified, teaches in figure 20 of FR '479 the limitation wherein the annular friction member 64 comprises a friction lining supported directly by an element 63a secured to a bearing ring 4.

Re: claims 16 and 17. FR '479, as modified, teaches in figure 20 of FR '479 the limitation wherein the means for detecting rotation parameters comprises a sensor 14 secured to the non-rotating part and an encoder 18 secured to the rotating part or a sensor mounted in a cover 19 equipped with a wire outlet shown in the area of element 20.

Re: claims 18 and 19. FR '479, as modified, teaches in figure 20 of FR '479 the limitation wherein the inner ring 4 of the bearing is push-fitted onto a shaft 31 (having a shoulder 33 extending outward) supporting the wheel shown in figure 1 in the area of the lead line of number 34.

Re: claims 20 and 21. FR '479, as modified, teaches in figure 20 of FR '479 the limitation wherein the outer ring of the bearing is push-fitted into a casing 1 supporting

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part of the braking means and wherein the cover 15 is fixed onto the end of the casing 1 so as to close off the casing on the opposite side to the wheel.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over FR-2804479 (FR '479) in view of US Patent 5044784 to Lisowsky as applied to claim 1 above, and further in view of FR-810088 (FR '088).

In an alternate interpretation, FR '479, as modified, describes the invention substantially as set forth above, but does not include the limitation of the device comprising a seal protecting the braking means. FR '088 teaches in figure 1 the use of a seal 13 protecting the braking means 33 from debris entering from the right side of the device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the device of FR'479, as modified, to include a seal, as taught by FR '088, in order to provide means for protecting the braking means from debris.

Response to Arguments

5. Applicant's arguments filed 1/18/05 have been fully considered but they are not persuasive. Examiner maintains that elements 62,62a may be considered a braking means since they fasten the two races together to help prevent relative movement. It is irrelevant that the braking means holds or brakes only temporarily. The claim language does not preclude the braking means being a temporary braking means that provides braking only prior to device use.

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6. Applicant's arguments, see pgs. 16-17, filed 1/18/05, with respect to the rejection(s) of claim(s) 1, 3-10, 13, 14, 18, 20, 22, and 23 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a new perspective of FR'479.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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May 16, 2005

Melody M. Bruch
5/16/05